

## IN THE CLAIMS

Please delete all prior lists of claims in this application and insert the following list of claims:

1. ~~[CANCEL] A method for diagnosing spongiform disease or demyelinating disease in vertebrates, including BSE, MS and CJD, which comprises assaying a biological sample for antibodies which bind to myelin and/or neurofilaments or to one or more antigenic (immunogenic) parts thereof.~~

2. ~~[CANCEL] A method according to claim 1, in which the antibodies are IgA antibodies.~~

3. ~~[CANCEL] A method according to claim 1, in which the assay is for antibodies that bind to vertebrate myelin and/or neurofilaments or parts thereof.~~

4. ~~[CANCEL] A method according to claim 3, in which the vertebrate is bovine or human.~~

5. ~~[CANCEL] A method according to claim 4, in which the test antigen is a peptide selected from the group consisting of peptides having sequences identified as Sequence ID Nos. 1 to 7 hereinbefore specified.~~

6. ~~[CANCEL] A method according to claim 1, in which a positive result is indicated by levels of antibodies at least about two standard deviations above that of control samples.~~

7. ~~[CANCEL] A method according to any of the preceding claims combined with an assay for antibodies to Acinetobacter species.~~

8. ~~[CANCEL] A diagnostic kit for the detection of spongiform disease or demyelinating disease in vertebrates comprising, as test antigen, myelin and/or neurofilaments and/or one or more parts thereof.~~

9. ~~[CANCEL] A diagnostic kit according to claim 8, in which the test antigen is a peptide having a sequence selected from the group consisting of Sequence ID Nos. 1 to 7 specified herein before.~~

10. ~~[CANCEL] A diagnostic kit according to claim 8, containing as test antigens myelin, neurofilaments, and Acinetobacter calcoaceticus.~~

11. [NEW] A method for diagnosing spongiform disease or demyelinating disease in vertebrates, including bovine spongiform encephalopathy (BSE), multiple sclerosis (MS) and Creutzfeldt Jacob disease (CJD), which comprises assaying a biological sample for levels of at least two of the following antibodies:

(a) antibodies which bind to myelin, or to one or more antigenic parts thereof;

(b) antibodies which bind to neurofilaments, or to one or more antigenic parts thereof; and

(c) antibodies which bind to an Acinetobacter species that presents to the vertebrate an antigen that mimics the myelin of the vertebrate.

12. [NEW] The method according to claim 11, in which the ~~antibodies are~~ IgA antibodies Acinetobacter species contains the sequence ISRFAWGEV.

13. [NEW] The method according to claim 11, in which the antibodies are IgA antibodies.

14. [NEW] The method according to claim 11, in which the antigens used for assaying antibodies to neurofilaments are peptides selected from the group

consisting of peptides having sequences identified as Sequence ID Nos. 1 to 8 hereinbefore specified.

15. [NEW] The method according to claim 11, which includes the assay of antibodies (c).

16. [NEW] The method according to claim 15, in which the test antigen for antibodies (c) is whole *Acinetobacter* bacteria.

17. [NEW] The method according to claim 15, in which the test antigen for antibodies (c) is a peptide having a sequence that mimics the myelin of the vertebrate.

18. [NEW] The method according to claim 15, in which the test antigen for antibodies (c) is a peptide having the sequence ISRFAWGEV.

19. [NEW] The method according to claim 11, in which the determined levels of the antibodies are combined and compared with those present in control samples.

20. [NEW] The method according to claim 19, in which the multiplication product of the determined levels of the antibodies assayed is calculated.

21. [NEW] The method according to claim 20, in which the multiplication product of the determined levels of all three antibodies (a), (b) and (c) is calculated.

22. [NEW] The method according to claim 21, in which a positive result is indicated by a multiplication product of at least about three standard deviations above that of control samples.

23. [NEW] The method according to claim 11, in which the *Acinetobacter* species is *Acinetobacter calcoaceticus*.

24. [NEW] A diagnostic kit for the detection of spongiform disease or demyelinating disease in vertebrates, including bovine spongiform encephalopathy (BSE), multiple sclerosis (MS) and Creutzfeld Jacob disease (CJD), by assaying antibodies present in the vertebrate, the kit comprising at least two test antigens selected from the group consisting of:

- (a) myelin or one or more antigenic parts thereof;
  - (b) neurofilaments or one or more antigenic parts thereof; and
  - (c) an antigen specific for antibodies to an *Acinetobacter* species containing a peptide sequence that mimics the myelin of the vertebrate;
- wherein the at least two test antigens are disposed in a suitable container.

25. [NEW] The diagnostic kit according to claim 24, in which, the *Acinetobacter* species contains the peptide sequence ISRFAWGEV.

26. [NEW] The diagnostic kit according to claim 24, in which, the *Acinetobacter* species is *Acinetobacter calcoaceticus*.

27. [NEW] The diagnostic kit according to claim 24, in which, when antigen (c) is present, antigen (c) is whole, isolated *Acinetobacter* bacteria.

28. [NEW] The diagnostic kit according to claim 24, in which, when antigen (c) is present, antigen (c) is a peptide having a sequence that mimics the myelin of the vertebrate.

29. [NEW] The diagnostic kit according to claim 28, in which antigen (c) is a peptide having the sequence ISRFAWGEV.

30. [NEW] The diagnostic kit according to claim 24, in which all three test antigens (a), (b) and (c) are present.

31. [NEW] The diagnostic kit according to claim 24, in which the test antigens for assaying antibodies to neurofilaments are peptides having sequences selected from the group consisting of SEQ. ID NOS. 1 through 8.

32. [NEW] The diagnostic kit according to claim 24, for use in an assay for IgA antibodies.

33. [NEW] The diagnostic kit according to claim 24, the kit comprising as test antigens:

- (a) myelin or one or more antigenic parts thereof; and
  - (b) neurofilaments or one or more antigenic parts thereof; and
  - (c) an antigen specific for an antibody to an *Acinetobacter* species and containing a peptide comprising sequence ISRFAWGEV,
- the test antigens being disposed in a suitable container.

34. [NEW] The diagnostic kit according to claim 33 in which antigen (c) is a peptide having the sequence ISRFAWGEV.

35. [NEW] A method for diagnosing spongiform disease or demyelinating disease in vertebrates, including bovine spongiform encephalopathy (BSE), multiple sclerosis (MS) and Creutzfeldt Jacob disease (CJD), which comprises assaying a biological sample for IgA antibodies which bind to myelin and/or neurofilaments or to one or more antigenic (immunogenic) parts thereof.

36. [NEW] The method according to claim 35, in which a positive result is indicated by levels of antibodies at least about two standard deviations above that of control samples.